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THE THIRTEEN PRAGMATISMS. I.

IN the present year of grace 1908 the term "pragmatism"—if not the doctrine—celebrates its tenth birthday. Before the controversy over the mode of philosophy designated by it enters upon a second decade, it is perhaps not too much to ask that contemporary philosophers should agree to attach some single and stable meaning to the term. There appears to be as yet no sufficiently clear and general recognition, among contributors to that controversy, of the fact that the pragmatist is not merely three, but many gentlemen at once. Some recent papers by Perry in this JOURNAL set, as it seems to me, the right example, in discriminating a number of separate pragmatistic propositions and discussing each of them by itself. But perhaps even these papers do not insist so emphatically as it is worth while to do upon the utter disconnection and even incongruity that subsists between a number of these propositions; and there are one or two important ambiguities of meaning in certain of the pragmatists' formulas which do not seem to find a place in Perry's careful enumeration. A complete enumeration of the metamorphoses of so protean an entity is, indeed, perhaps too much to expect; but even after we leave out of the count certain casual expressions of pragmatist writers which they probably would not wish taken too seriously, and also certain mere commonplaces from which scarcely any contemporary philosopher would dissent, there remain at least thirteen pragmatisms: a baker's dozen of contentions which are separate not merely in the sense of being discriminable, but in the sense of being logically independent, so that you may without inconsistency accept any one and reject all the others, or refute one and leave the philosophical standing of the others unimpugned. All of these have generally or frequently been labeled with the one name, and defended or attacked as if they constituted a single system of thought—sometimes even as if they were severally interchangeable. This multiplicity of meanings in pragmatism is partly explicit and partly implicit; that is to say, it is partly due to the conjunction by the representatives of pragmatism of contentions which they themselves express by separate formulas; and it is partly

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due to unrecognized ambiguities of meaning or duplicities of implication latent in one or another of these formulas.

It is to the latter source of divergency in the meaning of the pragmatist doctrines—to the profound equivocality of some of them—that I desire in this paper more particularly to call attention. But I shall try to put down all the logically independent doctrines of importance that seem to have been improperly reduced to unity in current discussions; and I shall try to exhibit the fact of their reciprocal independence in as clear a light as possible. To contribute to the determination of the truth or falsity of any one of these doctrines is no part of the business of the present discussion; for I venture to think that the question of truth has sometimes been not very profitably dealt with during the past ten years, in the absence of a sufficiently considerate prior clearing up of the question of meaning. The pragmatist school itself seems, thus far, more distinguished for originality, inventiveness, and a keen vision for the motes in the eye of the intellectualist, than for patience in making distinctions or the habit of self-analysis. And its critics, on the other hand, have occasionally made haste to take the utmost advantage of this unassorted commingling of doctrinal sheep and doctrinal goats in the ample fold of pragmatic theory, and have made the apparently caprine character of some members of the flock a warrant for the wholesale condemnation of the entire multitude. In view of this situation, nothing seems more called for than an attempt at clear differentiation of the separate pragmatist assertions and tendencies. There is, indeed, some danger that the enumeration of these variations may become an appallingly seductive new game for philosophers; one may even apprehend a risk that editors of philosophical journals may be tempted to seek a wider popular appeal by offering prizes to the *bona fide* subscribers who can count the greatest number of pragmatisms. Certainly it is probable that the following list could be extended. But I hope that it will be found to include all the genuinely independent contentions that are most frequently illicitly identified, and all the ambiguities of meaning that are so central and important as to call for serious consideration from both the defenders and the critics of the several opinions to which the one name has been applied.

1. Primarily, it is obvious, pragmatism—the pragmatism of Peirce, and of James's Berkeley address—was merely a doctrine concerning the meaning of propositions, concerning the way in which the really significant issue in any controversy could be determined. It maintained that the meaning of any proposition whatever is reducible to the future consequences in experience to which that proposition points, consequences which those who accept the

proposition *ipso facto* anticipate as experiences that somebody is subsequently to have. Now, a theory about the meaning of propositions is not the same thing as a theory about the criterion of truth in propositions; a formula which professes to tell you how to ascertain precisely what a given assertion really signifies does not thereby profess to tell you whether or not that assertion is true. James, at least, in his recent book and elsewhere, has clearly noted this distinction between pragmatism as a theory of meaning and pragmatism as a theory of truth; Schiller does not appear to do so, since he identifies the "principle of Peirce" with a view concerning the mark that "establishes the *real* truth and validity" of a proposition.[1] But I do not think that even James has sufficiently insisted upon the logical disconnectedness of the two theories. Indeed, the whole topic of the relation of meaning and truth might advantageously receive more extended discussion than it has yet had. It may at first sight seem that a close logical relation can be made out between the two, in at least one direction. To know what a proposition exactly means may appear to involve a knowledge of just where to look for the evidence of its truth and for the test by which its claim to truth can be brought to proof. If a judgment *means* merely certain future experiences, it might appear that its truth could be known only through—and, therefore, only at the time of—the occurrence of the predicted experiences. But I can not see that this really follows. The assertion "God exists and mere materialism is false" may possibly mean only the anticipation of a cosmic future different in specific ways from that which the acceptance of the contrary proposition would lead one to expect; but the criterion of the truth of the assertion need not be correspondingly future. Its truth may conceivably be known *now*, through a mystical intuition or by a "necessity of thought"; or (and this is apparently good pragmatist doctrine about knowledge) it may be a proposition that we are obliged and entitled proleptically to accept as a true postulate, because it satisfies a present (not a future) need. The experiences whose occurrence constitutes the meaning of the judgment may have one date; the apprehension of the judgment's validity, or legitimacy as a belief, may have quite another. According to one of the pragmatist theories of truth, a proposition is known as true (in the only sense of "true" which that theory regards as intelligible) at the moment at which it effectually operates to put an end to a felt inner discord or to open a way through a practical *impasse;* but the matter to which the proposition refers not only may be, but normally will be, subsequent to that moment of acceptance and

[1] "The Definition of Pragmatism and Humanism" in "Studies in Humanism," 1907, p. 5.

mental relief. A "plan of action" presumably relates to the future; but the determination of its "truth," or whatever kind of acceptability is pragmatically to pass for such, can not be postponed until the future to which it relates has been "verified" by becoming past; else all our "true" plans of action would, paradoxically, be retrospective, and we should have to say that the pragmatic man never is, but always is about to have been, blest with knowledge. If, then, the legitimacy of a belief is, upon pragmatist principles, to be known at one moment, while the experiences which it "means" may run on into later moments, it appears to follow that the fullest knowledge of the belief's meaning may throw no light whatever upon the question of its legitimacy. That—until the belief has (presumably) *lost* all meaning by coming to refer purely to past experiences—still remains, from the standpoint of pragmatism as a theory of meaning, a separate and unsettled question; it is impossible to infer that the pragmatist theory of validity is any more correct than another. The acceptance of either one of these theories, equally known as "pragmatism," leaves you an entirely open option with respect to the acceptance of the other.

2. This pragmatic theory of meaning, as used by James, who has been its principal expounder and defender, seems designed to function chiefly as a quieter of controversy, a means for banishing from the philosophic lists those contestants between whose theories there appears, when this criterion is applied, to be no meaningful opposition, in whose differences there lies no issue that "makes a difference." In this application, however, the criterion clearly exhibits a radical ambiguity. The "effects of a practical kind" which our conception of an object must (we are told) involve, the "future consequences in concrete experience, whether active or passive," to which all significant propositions must point, may consist in either: (*a*) future experiences which the proposition (expressly or implicitly) predicts as about to occur, *no matter whether it be believed true or not;* or (*b*) future experiences which will occur *only upon condition that the proposition be believed.* The consequences of the *truth* of a proposition (in the sense of its correct prerepresentation of a subsequent experience to which its terms logically refer), and the consequences of *belief* in a proposition, have been habitually confused in the discussion of the pragmatic theory of meaning. Taken in the one sense, the theory is equivalent to the assertion that only definitely predictive propositions—those which, by their proper import, foretell the appearance of specific sensations or situations in the "concrete" experience of some temporal consciousness—have real meaning. Taken in the other sense, the theory does not require that propositions *refer* to the future at all; it is

enough that, by being carried along into the future as beliefs in somebody's mind, they be capable of giving to that mind emotional or other experiences in some degree different from those which it would have in the absence of the beliefs. No two doctrines could be "pragmatically" more dissimilar than the pragmatic theory of meaning when construed in the first sense, and the same theory when construed in the second sense. If the formula includes only "future experiences" of the class (*a*), it has the effect of very narrowly limiting the range of meaningful judgments, and of excluding from the field of legitimate consideration a large number of issues in which a great part of mankind seems to have taken a lively interest; and it must assuredly be regarded as a highly paradoxical contention. But if it includes also future consequences of class (*b*), it is no paradox at all, but the mildest of truisms; for it then is so blandly catholic, tolerant and inclusive a doctrine that it can deny real meaning to no proposition whatever which any human being has ever cared enough about to believe. In James's "Pragmatism" his criterion is applied to specific questions sometimes in one sense and sometimes in the other; and the results are correspondingly divergent. Using his formula in the first sense, he argues, for example, that the only "real" difference between a theistic and a materialistic view of the universe is that the former entitles us to predict a future in human experience that contains certain desirable elements for the expectation of which materialism gives no warrant. In other words, the whole "meaning" of theism is declared to be reducible to the anticipation of a specific cosmic or personal future; and the only genuine issue between it and the opposing doctrine lies in the question of the legitimacy of this anticipation. "If no future detail of experience or conduct is to be deduced from our hypothesis, the debate between materialism and theism becomes quite idle and insignificant." Supposing matter capable of giving us just the same world of experience as a God would give us, "wherein should we suffer loss if we dropped God as an hypothesis and made the matter alone responsible? Where would any special deadness, or crassness, come in? And how, experience being what is once for all, would God's presence in it make it any more living or richer?"[2] "Treated as it often is" (*i. e.*, treated non-pragmatically), "this question becomes little more than a conflict between esthetic preferences," between different ways of talking about, imaging, or explaining the ancestry of, precisely the one, identical, actual world of past, present, and future experiences; and such differences in esthetic preferences are treated by James as "abstract" things that really make no difference. In the spirit of this chapter of James's book

[2] "Pragmatism," Lecture III., *passim*.

—which is the spirit of the Enlightenment at its narrowest, most utilitarian, least imaginative—one might go on to eliminate from consideration, as pragmatically meaningless, a large part of the issues over which metaphysicians and theologians have divided; one might show that (apart from the having of the beliefs themselves, which from the present point of view does not count) it makes no difference whether you believe or reject most of the dogmas of theology or the hypotheses of speculative philosophy. For these largely refer to alleged permanent, unvarying factors of reality, from which no specific contents of experience (beyond, once more, the experiences directly arising from the recognition of the presence of those factors) can be clearly deduced. The trinitarian presumably does not necessarily anticipate "concrete future experiences" different from those anticipated by the unitarian; nor need the pantheist expect the cosmos to behave in a manner other than that expected by the pluralistic theist. Later in James's book, however, we find his criterion taken in the opposite sense; for example, while the author observes of the monistic doctrine of the absolute that "you can not redescend into the world of particulars by the absolute's aid or deduce any necessary consequences of detail important for your life from your idea of his nature," just this non-predictive doctrine is credited with genuine pragmatic meaning, because "emotional and spiritual" consequences flow from the belief in it (pp. 273–4). And in *this* spirit, all beliefs with which human emotions have in any degree become entangled would have to be regarded by the pragmatist as *ipso facto* meaningful and serious. It would not even be necessary that the beliefs should, in the ordinary logical sense, have any intelligible import at all. There are some who feel pretty sure that those who adhere, for instance, to the nihilistic monism of the Vedanta, or to the Athanasian doctrine of the Trinity, never really *conceive together* the elements of the propositions that they affirm; but no one can deny that, out of the maintenance of the posture of belief towards these propositions, believers derive highly distinctive and vivid experiences, which they could scarcely have in any other way. And for all such beliefs our pragmatist—who, but a moment ago, seemed so narrow and ferocious an *Aufgeklärter*—would now be compelled to find a place among the significant issues.

The pragmatic theory of meaning thus breaks up into two possible doctrines that are not merely different, but incongruous. We seem to be justified in calling upon the pragmatist to make an election between them. If I may, for a moment, go beyond the province chosen for this paper, I venture to predict that neither choice will be found welcome; for I suspect that all the charm and impressiveness of the theory arises out of the confusion of its alternative inter-

pretations. It gets its appearance of novelty, and of practical serviceableness in the settlement of controversies, from its one meaning; and it gets its plausibility entirely from the other. But (when the distinction is made) in the sense in which the theory might be logically functional, it seems hardly likely to appear plausible; and in the sense in which it is plausible, it appears destitute of any applicability or function in the distinguishing of "real" from meaningless issues.

3. But the pragmatic theory of meaning in its first sense—with its characteristic emphasis upon the ultimately predictive import of all judgments—leads to a theory concerning the way in which judgments are verified; in other words, to a theory about the meaning of truth. If all judgments must refer to specific future experiences, their verification consists in the getting of the experiences which they foretold. They are true, in short, if their prediction is realized; and they can, strictly speaking, be known to be true only through that realization, and concurrently with the occurrence of the series of experiences predicted. James presents this doctrine with an apparent exception in favor of "necessary truths"; which, since they coerce the mind as soon as they are clearly presented to it, are (he seems to admit) verified "on the spot," without waiting for the presentation in experience of all empirical phenomena that may be referred to by them. But even this exception is not recognized entirely unequivocally; and in any case, for the great mass of our judgments, their truth consists in the correspondence of the anticipations properly evoked by them with subsequent items of experience; and the verification of their truth comes only when the whole series of such items which they foreshadowed has been completely experienced. "All true processes must lead to the face of directly verifying experiences *somewhere*, which somebody's ideas have copied." "Truth *happens* to an idea. It becomes true, is made true by events. Its verity *is*, in fact, an event, a process: the process, namely, of its verifying itself, its veri-*fication.*"[3]

Now, I have already tried to show that such a theory of truth is neither identical with, nor properly deducible from, the original pragmatic theory of meaning—in either of its senses. I wish now to make more fully clear the precise import of this theory of truth, and to show its contrast with another type of theory of truth which also and, I think, more properly figures as pragmatism. Observe that the words quoted give us a theory of truth which is obviously not at the same time functionally serviceable as a theory of knowledge—which seems a strange trait in a pragmatist theory. According to this phase of pragmatism, judgments are not true till they

[3] "Pragmatism," pp. 215, 201.

become true; and when they have become true they have no importance (and, as I have suggested, they even ought to be said, on pragmatist principles, to have no meaning), for their reference is to the dead past. Our intellect is condemned, according to this doctrine, to subsist wholly by a system of deferred payments; it gets no cash down; and it is also a rule of this kind of finance that when the payments are finally made, they are always made in outlawed currency. Now, of course, what we practically want, and, indeed, must have, from a theory of knowledge is some means of telling what predictions are to be accepted as sound *while they are still predictions.* Hindsight is doubtless a good deal more accurate than foresight; but it is less useful. No one is likely to deny that a valid proposition (in so far, at least, as it is predictive at all) must "lead us finally to the face of some directly verifying experience"; but I can conceive no observation which it can be more unprofitable to dwell upon than this one. If this were all that a pragmatic epistemology had to tell us, it would assuredly be giving us a stone where we had asked for bread.

But, of course, there is a form—or more than one form—of pragmatic epistemology that offers to meet the real needs of the situation in which the problem of knowledge arises—that seeks to tell us what predictive judgments ought, and what ought not, to be believed, before the "veri-*fication*" of those judgments in actually possessed experience makes the question concerning their truth as irrelevant and redundant a thing as a coroner's inquest on a corpse is—to the corpse. And these pragmatist theories about the criterion of truth —*i. e.*, about the marks of the relative validity of propositions—which attempt to be really functional ought to be completely distinguished from this sterile doctrine which insists that the only true proposition is a dead proposition.

These theories, however, and others, must be considered in a subsequent instalment of this *histoire des variations.*

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PSYCHOLOGY AS SCIENCE OF SELF

I. IS THE SELF BODY OR HAS IT BODY?

THE main results so far reached by this discussion are the following: I have defined psychology in a provisional way as science of consciousness and have pointed out that, as thus regarded, it may more definitely be conceived (1) as science of ideas or contents, often

named structural psychology, or (2) as science of mental functions, so-called functional psychology, or, finally, (3) as science of the conscious self. I have then insisted that the third form of psychology is really fundamental to the others and implied by both of them. An idea-as-such, I have argued, is a needlessly artificial abstraction: every idea is experienced as idea-of-a-conscious-possessor-of-ideas. And, similarly, a mental function is experienced as activity of a mental functioner, or agent. Such a possessor of ideas, or mental functioner, may best be called a self; and I have next, therefore, to discuss the nature of the self.

Among the different views of the "self," or mental functioner, as object of scientific psychological study, there are two which stand out sharply in contemporary discussion. The first identifies the self, as mental functioner, with the psychophysical organism—in a word, it conceives the self as mind-in-body or mind-plus-body: according to this view, body constitutes part of self. The second theory conceives of self as non-inclusive of body: according to this view, body is *not* part of self, though it may well be regarded as closely related to self. On the basis of these two theories of the psychologist's self, there are three distinguishable forms of self-psychology. (1) In the first place, the self may be conceived as psychophysical organism, and psychology may be regarded as science of the processes or functions of the conscious body, the mind-and-body-complex. This seems to me to be the practical procedure of most of our present-day functional psychologists—especially it seems to be the conclusion of American psychologists. The use of the term "self" in this sense is expressly sanctioned by Professor Angell in his most recent paper.[1] The objection to this view is the following: in regarding mind and body as together making up a complex the psychologist compounds phenomena which are in great degree distinct, and he thus fails to account for the admitted distinction of the functions of the so-called psychophysical organism. If it were justifiable to regard mind and body as compounded, or united, in a psychophysical organism, then all the functions of this organism should be neither physiological nor psychical, but themselves psychophysical. Functional psychologists, however, though they point to certain psychophysical functions—such as selection, adaptation, variation—yet never escape the necessity of distinguishing from these the "purely psychical" and the "merely physiological" functions. Implicitly or explicitly, they all perforce agree with Angell in admitting the existence of "dominantly physiological functions . . . assimilation, reproduction, motion," which they distinguish from "the categories"—sensibility, for instance—"appropriate to the psychical

[1] "The Province of Functional Psychology," *loc. cit.*, p. 82 and note.

alone.''[2] But if it is still necessary to distinguish psychical from physiological functions, nothing seems gained by the doctrine that the functioner is psychophysical. It is surely quite as simple and more logical to admit the existence of a psychical functioner of psychic functions in close relation to a physical functioner of physical functions than to insist on the identity of the two functioners while yet one is obliged to distinguish the two groups of functions as radically different.

(2) A second, logically possible form of self-psychology would regard the self, or mental functioner, as mind-without-body, self unrelated to body. So far as I know, nobody nowadays champions this doctrine and I should not take time to mention it were it not that Professor Angell attributes it to me. ''Such a functional psychology,'' he says, ''as I have been presenting would be entirely reconcilable with Miss Calkins's 'psychology of selves' . . . were it not for her extreme scientific conservatism in refusing to allow the self to have a body, save as a kind of conventional biological ornament. The real psychological self, as I understand her, is pure disembodied spirit. . . .'' It ought not to be necessary for me to explain that I have never held, or meant to teach, a psychology of disembodied spirit. I do indeed believe that it is possible to analyze, classify, and (in a sense) to explain psychic phenomena without reference to their physiological or biological correlates: in other words, I hold, with Professor Warren, that ''psychological investigation can be carried on without . . . physiological research.''[3] But the intimate connection, to ordinary observation, of psychical and physical—the facts that certain psychical phenomena, notably perceptions, are inexplicable psychologically and yet in close relation to physical phenomena, and that still other phenomena, as those of ''instinctive'' liking and interests, are biologically, not psychologically, explicable—these considerations speak unequivocally against a conception of psychic self as unrelated to body.

(3) The third view (and the one which I hold) of the psychologist's self regards the self as distinct from body, but related to it. Thus, so far from ''refusing to allow the self to have a body,'' I insist that it precisely *has* a body, and does not *consist in* body, is not made up of body-and-mind. This procedure avoids the difficulty, already stated, of the psychophysical organism conception which, however successful in uniting two functioners, loses all the value of the union since it has still to distinguish two sorts of functions, psychical and physiological. And, positively, this conception of the

[2] *Op cit.*, pp. 76–77.

[3] H. C. Warren, "The Fundamental Functions of Consciousness," *Psychological Bulletin*, Vol. III., p. 218.

self as *having* body, related to body, may be enriched by all the facts, physiological and biological, of functional psychology. That is to say, it is germane to self-psychology both to teach that the bodily phenomena which regularly accompany consciousness have values in the perpetuation of biological individual and of race, and to show that certain physical facts are the regular antecedents or accompaniments of certain facts of consciousness. "Such a settlement of the issue," Angell would object, "is easy and logically consistent. But does it not leave us with a gulf set between the self as mind and the self as body for the crossing of which we are forthwith obliged to spend much needless energy, as the gulf is of our own inventing?"[4] To this objection I should answer: first, I do not think that the gulf is of our own inventing. As scientists, we have to start out from the standpoint of every-day adult consciousness; and for this the distinction between mind and body is already clearly made. And, secondly, I can not admit that undue energy is needed to cross the gulf. As psychologists, once more, we are not concerned with the philosophical problem of the relation of mind and body; we take for granted the existence of the two, and their relation, on the ground of observation behind which we, as *scientists,* have no business to probe. It is perfectly simple to treat the relation between psychical and physical as that of concomitance, antecedence, or consequence, without taking sides with interactionist, parallelist, epiphenomenalist, or panpsychist. And, finally, as I have so often insisted, this "gulf" between psychical and physical must be bridged not only by upholders of this doctrine of "the self which has body," but by advocates of the psychophysical organism doctrine. The difference is simply that the gulf lies, in the one case, between self and body and, in the other case, between purely mental function and physiological function.

In insisting that self-psychology, conceived as science of the "conscious self which has body," is in essential harmony with the characteristic teachings of functional psychology, I am delighted to find myself in substantial agreement with Professor Judd, as I read his recently published "Psychology." The book "aims" explicitly "to develop a functional view of mental life" and yet it teaches that "psychology deals with the self."[5] The self, Dr. Judd definitely teaches, is not "independent in its development of bodily organs." Yet the self certainly is not, as conceived by Judd, a mere psychophysical organism. It is "the center of all possible forms of relationship . . . to other selves, to the physical world, . . . to all other phases of known reality. . . . It is characterized," Professor

[4] *Op. cit.*, p. 82, note.

[5] "Psychology, General Introduction," p. 315. *Cf.* pp. 310–311.

Judd adds, "by a unique type of activity which . . . we describe when we use the word 'consciousness.' "

The conclusion that the self, or the basal fact of psychology, stands in close relation to its body, presses the question: What, more precisely, is the nature of this relation? Differently phrased, the question may read: What reference shall the psychologist make to physical phenomena? In order to answer this question it is necessary to ask more generally wherein adequate scientific procedure consists. The task of any scientist is twofold: first, to describe or portray and, secondly, so far as possible to explain the phenomena which he treats. Observation, analysis, and classification are, taken together, the main factors of scientific description; and psychological description, "the exact portrayal of conscious life," involves keen observation of the psychic fact, complete analysis of it into its constituent factors, and adequate classification of it by its likeness and unlikeness to other phenomena. Explanation, in the narrowly scientific sense, consists in the discovery of the additional phenomena, psychic and physical, to which a given psychic fact is related (otherwise than by its likeness or its difference). This other phenomenon may itself be a psychic fact—as when a memory is "explained" as due to repeated perception; or it may be a fact of another order—physical (in the narrow sense), or physiological, or biological. It will be observed that nothing in this conception essentially contradicts the doctrine that science is always descriptive, never explanatory—an answer always to the question "how?" not to the question "why?"[6] For the kind of explanation which such a doctrine excludes from science is explanation of the ultimate, metaphysical sort, not explanation conceived as a tracing of antecedent and consequent or of simultaneous correlates. One further statement must be made with reference to the ideal scientific explanation. Such an explanation would serve to classify the phenomena which it explained. For phenomena may be grouped and classified not only according to their internal likenesses and unlikenesses, but also with reference to the likenesses and differences of the phenomena which explain them.

This simple distinction, rather generally admitted, between explanation and description indicates clearly, I think, the part which physiology and biology—and, to less degree, physics—have to play in psychology. It is clear that psychic phenomena are incapable of scientific analysis into non-psychical factors: an emotion can no more be *described* by an enumeration of the frontal lobe excitations, the

[6] *Cf.* K. F. Pearson, "The Grammar of Science," 2d ed., pp. 306, 332, 344 *et al.*

contractions of unstriped muscles, and the instinctive attitudes which precede or accompany it than a picture can be described by an account of the mixing of the pigments used in painting it. On the other hand, it has become increasingly evident that psychic phenomena may be (in the scientific sense already outlined) more or less adequately explained by linking them with physical, physiological, and biological phenomena. It is not possible in the limits of my space to consider in detail the adequacy and extent of these explanations, but a few more specific comments are needed. The explanation of facts of consciousness by physical phenomena is admitted to hold only partially. It is possible to distinguish sensational consciousness from every other sort, as that which follows primarily on physical stimulation, and to differentiate most forms of sensational stimulus from each other; but no close correspondence can be traced between the physical and the psychical. In particular, a simple physical stimulus (as colored light) often conditions a complex sensational experience, whereas a highly complex stimulus (white light, for example) may be the antecedent of relatively simple sense consciousness.

The explanation of psychic fact by physiological is a far more adequate procedure. The account of sensational consciousness as correlated with the excitation of end organs and of fixed parts of the central nervous system and as regularly accompanied by characteristic muscular contractions[7] represents the most assured results of this method of explanation, but fruitful theories abound with reference to the physiological accompaniments of affective and even of relational and volitional consciousness. The insufficiency of the purely physiological explanation must, however, be admitted. In the first place, much of it is avowed hypothesis—it can not, for example, be claimed that any physiological explanation of the sensation of pain, or of the consciousness of extensity, or of the affective experience is at present stably assured. It is evident, in the second place, that the physiological explanations are entirely inadequate to the classification of psychic phenomena. For even granting that distinctions in physiological accompaniment mark off from each other the large divisions of our conscious experience, no such distinctions can be found corresponding with the finer differentiations of the conscious life. By aid of physiology one may indeed dis-

[7] The "biological" psychologists (the prevailing American type, as has appeared, of functional psychologists) often assume that the study of muscular reactions belongs exclusively to them, and accuse the physiological psychologists of a too exclusive concern with afferent fibers and nerve centers. The truth is, of course, that the conception of contracting muscles and of body in motion is, at base, physiological, becoming biological when supplemented by the notion of organic adaptation.

tinguish perception from imagination, visual from auditory imagination, and (less certainly) imagination from thought, and both imagination and thought from emotion. But no one has ever suggested a distinction of connecting fibers or of association centers which provides a reasonable basis for the clearly marked difference between discrimination and generalization or between egoistic and sympathetic joy.

The relation of biological to psychological phenomena has finally to be considered. The biological conception of consciousness is that of a reaction-to-environment which is, on the whole, beneficial, and is either immediate or delayed, either an adaptation or an interference. From the point of view of the biologist this may appear to be a description of consciousness, but to the psychologist it is evident that one gives no account of consciousness-as-such by naming it useful reaction, whether accommodating or selective, to environment. Really to describe consciousness, one must recognize it as, let us say, dominantly sensational or affective, as receptive or assertive, as individualizing, and as "egoistic." But while biology can furnish us no description of consciousness, it goes farther in providing us with explanations (in the sense already made clear). This becomes evident through a study of biological phenomena—in particular, of organic reactions and attitudes. The main distinction made here by biologists and by biological (often called functional) psychologists is the familiar one between (1) immediate or "short circuit" organic responses and (2) delayed or "long circuit" responses.[8] From this point of view our relatively simple sensational and affective experiences are explained as accompaniment or result of immediate organic responses and are thus definitely marked off from thought, emotion, and the volitional consciousness—experiences of which the characteristic antecedents or correlates are complex attitudes and delayed activities. It is evident that the immediate response to environment is necessary to the preservation and perpetuation of primitive and relatively undifferentiated organisms and that it is similarly a useful sort of reaction for the developed organism in many phases of its life; and it is equally obvious that the delayed reaction is essential to the survival, and consequently to the propagation, of the complex organism which has need to respond in varying fashion to surroundings of various sorts. Within this second group, that of the delayed reactions, it is possible, also, to make further differentiations. One may, as already indicated, distinguish reactions which are mere adaptations to environment from those which in some way alter or control the environment; one may also distinguish reactions of advance from reactions of with-

[8] *Cf.* Angell, "The Province of Functional Psychology," *op. cit.*, p. 74.

drawal; and one may, finally, characterize given organic responses according as they are the continuations or the interruptions of preceding reactions. Emotional activities may, for example, be regarded as interruptions both of habitual and of simple voluntary responses;[9] and then, within this group of delayed and interrupting reactions, rage may be explained as an emotion characterized by a reaction of advance, tending to interfere with the environment, and making for self-preservation; liking may be explained as an emotion, accompanied by an adaptive reaction of advance, which makes for the perpetuation of the race; fear as an emotion correlated with an adaptive movement of withdrawal, which is essential to self-preservation. Of course, all these characteristic attitudes and reactions may be regarded as survivals of the instinctive responses of primitive organisms.

But it is obvious, once more, that this procedure, however illuminating, does not suffice to differentiate all distinguishable forms of consciousness—in other words, that the biological conception (whether conceived as explanation or as description) does not furnish a sufficient classification of psychic phenomena. The function of emotion as a whole may indeed be distinguished from that of reasoning, and the function of joy from that of grief, the function of love from that of hate. But it certainly is not possible to differentiate, on the basis of function alone, between, let us say, memory and imagination, or between malice and envy. There is, in truth, no need to argue this point, for all "biological" psychologists make some use of other-than-biological distinctions in their classification of consciousness, that is, they treat the biological as supplementary to the distinctively psychological procedure. Angell, indeed, admitting "the paucity of the basic modes" of biological utility, argues that the biological method is valuable precisely "by virtue of the strong relief into which it throws the fundamental resemblances of processes often unduly severed in psychological analysis."[10] This means, of course, that the biological explanation of phenomena of consciousness, important as it is, is insufficient as discrimination of distinguishable facts from each other.

The general conclusions of our examination of these non-psychical principles of explanation are thus the following: on the one hand, it is evident that an ideally complete psychology must take account of those facts of physics, physiology, and biology which border on the domain of psychology. To neglect these groups of phenomena would be, indeed, to overlook the obvious relations of

[9] *Cf.* John Dewey, "The Theory of Emotion," *Psychological Review*, Vol. II., pp. 13 ff.; Angell, "Psychology," pp. 321 ff.

[10] "The Province of Functional Psychology," *loc. cit.*, pp. 74^{1} and 73^{3}.

consciousness to the rest of reality; and this neglect would involve, also, a loss for psychology of fruitful methods and applications. For precisely because physiological conditions and organic reactions are more directly and often more readily controllable than psychic states a knowledge of them may have both methodological and practical value. On the other hand, it has been shown, first, that the physical, physiological, and biological explanations of psychic phenomena are—many of them—insufficiently established and hypothetical in nature, and, secondly, that they afford an insufficient classification of psychic phenomena.

But apart from these criticisms on the success of these explanations of psychic phenomena in non-psychic terms, it must be expressly reiterated that such explanations, however complete and well verified, can never exhaust the procedure of the psychologist, that they are indeed subsidiary to his basal purpose, the description, or portrayal, of the psychic fact. "The distinctive aim of the psychologist," in the words of Professor Stout, "is to investigate mental events themselves, not their mechanical accompaniments or antecedents."[11] The distinctions between ether and air vibration, between rod and cone excitation, between short-circuit and long-circuit response, or even between self-preserving and race-perpetuating activity, are not distinctions within conciousness. Such distinctions may, indeed, serve to group facts of consciousness, but they form no part of a description of facts of consciousness. In other words, these non-psychological principles of explanation, useful as they are, are supplementary to the description of conscious experiences by psychological analysis.[12]

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REVIEWS AND ABSTRACTS OF LITERATURE

Pestalozzian Movement in the United States. W. S. MONROE. Syracuse: C. W. Bardeen. 1907. Pp. 244.

The purpose of the volume is well described in the following words taken from the preface: "No educator in modern times has more pro-

[11] "Analytic Psychology," I., p. 3.

[12] For brief treatment of explanation in psychical terms, *cf.* a later paper of this series. Because of the limits of my space, I do not here refer to Münsterberg's theory, that description is communication and that communication is only possible in terms of physical objects, since only such are sharable by several subjects. To this it may, I think, be objected: first, that description does not logically involve communication—one might, in other words, be a scientist-in-solitude; secondly, that the difficulty is rather philosophical than psychological, and that the psychologist may properly *assume* a parallel experience in other selves.

foundly influenced his contemporaries and immediate successors than Pestalozzi. . . . The purpose of the present work is to trace this movement (Pestalozzian) in the United States and to place on record the labors of a score of men who caught something of Pestalozzi's insight and enthusiasm and who sought to bring about a better order in the educational world by the adaptation of his reforms to the conditions of the new world."

For the purposes of orientation the author devotes the first chapter of his book to the spread of Pestalozzianism in Europe. The account is written in a clear and simple style and fulfills adequately the purpose of developing a background for the remaining ten chapters. Chapters II., III., IV., are devoted to an account, first, of William McClure, a Scotch philanthropist, who believed that in Pestalozzi's system he had discovered the educational clue to the permanent reforming of social conditions and who felt himself most powerfully drawn to the United States and its problems; secondly, to the activity of Joseph Neef, a coadjutor of Pestalozzi, who had been brought over to America by McClure to found and to superintend schools of the Pestalozzian order. Both accounts are simple and illuminating. Chapters V.–IX., inclusive, are devoted to an outline of the influence of Pestalozzianism as exhibited, first, in schools founded on the Pestalozzian plan and, secondly, in the careers of noted American educators (such as Alcott, Mason, Barnard, Sheldon, H. Kruse, Jr., W. T. Harris, and others) who had received inspiration and illumination from the work of Pestalozzi. Chapter X. is devoted to Pestalozzian literature in the United States, and Chapter XI. gives an excellent bibliography of the movement.

Taken in all, the volume is a readable and worthy introduction to the study of the American aspects of a movement which, in the past, has influenced education deeply and which, for the future, promises to be even more influential.

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Sur les fondements de l'arithmétique. C. Lucas de Pesloüan. *Revue de Philosophie,* April, May, June, 1907. Pp. 372–397, 489–509, 568–593.

We have here the most alluring criticism of modern mathematical logic which has yet been offered to philosophic readers. In the form of letters, the author relates the experience of a man who has heard of the "rational method" of dealing with exact science and makes use of a visit to Paris to acquaint himself therewith.

The work chosen as the basis of his studies is Laurent's "Sur les principes de la théorie des nombres et de la géometrie," a very unfortunate choice, for the work is far from being a model of its kind. At the outset he is hampered by the difficulty of putting aside presuppositions, even knowledge of counting, but he manfully makes the effort and commences the text. Four hypotheses take the place of traditional

axioms, but such ideas as "one," "alternative," "dualism" appear, of which the knowledge was lost with that of counting, and also the student is compelled to add new hypotheses which the text fails to supply. Nevertheless he professes himself filled with enthusiasm and commends the new method for the instruction of the young, although confessing himself to retain, as a result of early education, a persistent longing for some intuitively certain axioms.

The second letter reports the results of a conversation at the bookseller's with a young philosopher, who astounds the writer with the idea of mathematics as a hypothetico-deductive system which is utterly heedless whether its postulates correspond to real things or common notions, but which aims solely at the development of non-contradictory systems; a mathematics which has as its ideal the attainment of a minimum of principles and postulates even if in so doing it seems artificial and paradoxical, or deduces evident propositions from the less evident. In order to be free from misleading connotations of words, a sign language is necessary, and he turns first to Couturat's "L'algébre de la logique," as an introduction to the "Principes de mathématiques" by the same author, and to Peano's "Formulaire."

The writer tells us how fine are the nominal definitions of zero, unity, finite and infinite, etc., and he is delighted to find that instead of "simple" ideas such as number and space, which Pascal accepted, the "natural light" reveals ideas of "class," "class of classes," "class of classes of classes," "implication," "relation," "correlation," "correspondence," "belonging to," "dependence," "function," etc., and, best of all, the postulates themselves are not ideas expressed in words, but mere assemblages of signs capable of being changed only by other assemblages of signs, also postulates. He must now not merely be ignorant of number, but of all intellectual things. Unfortunately, the method is not sufficiently developed to be used in elementary education!

Our student next encounters an aged engineer who passes his leisure in mathematical research. The new friend is not filled with enthusiasm for these researches of his and astonishes him with the information that there are great mathematicians, such as Poincaré, unversed and uninterested in them. Then he criticizes the whole movement from the mouth of Pascal. Commencing with the profound reservation that we are first shocked and only later find reasons, not *why* we are shocked, but *because* we are shocked, he opposes the method as being a complication of mathematics, fruitless in its results, and hostile to the creative imagination. Also the attempt at a complete symbolization of concepts is ridiculous.

No brief review can give an adequate presentation of the profound appeal of the serious criticism half hidden in these humorously written letters. But we should not be too hasty in letting M. de Pesloüan persuade us to neglect attempts to reconstruct the logic of mathematics. Poincaré himself, the most severe critic of the movement, has recognized

two types of mathematical minds,[1] the one intuitively inductive and the other critically deductive; to the former belong the great discoverers, to the latter the selective critics who develop and perfect discoveries and weed out falsehoods sometimes taken for truths. If mathematical logic were pushed to an extreme and proposed as the tool of the former of these types of minds, such criticism as the above would be merited, but such critics as M. de Pesloüan forget its meaning for mathematicians of the other type.

To view mathematics as hypothetico-deductive is already critically to recast existing systems, of which the empirically traceable origin is generally far from deductive. Surely new systems, perhaps trivial, can be developed deductively from arbitrarily chosen postulates, but this is done in practise only for the critical reaction of such systems on those already existing. But the method viewed as functioning critically lets our author's criticisms fall harmless. The postulates are indeed artificial, but if they are recognized as the results of analysis rather than as bases of creative generation, half the reproach in this vanishes and the remainder is gone when we relate them to the demands of simplicity. Simplicity is a difficult notion to define. What is simple for one purpose is for another highly complex, and the only fair test of simplicity for notions in postulates is the pragmatic one, what notions work best for the use we wish to make of them. Judged thus, there is a good deal to be said for those so strenuously objected to by our author and by many philosophers and mathematicians. To see the one in the many is certainly a simplification, and these notions, however complex they may appear to intuition, at least enable us to connect formal logic, the various branches of analysis, and geometry in a very close and remarkable fashion when they would otherwise appear as comparatively isolated branches of learning.

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The Phenomenal Sanctions of the Moral Life. F. C. DOAN. *Mind,* N. S., No. 62, April, 1907. Pp. 196–208.

Mr. Doan evidently belongs to the militant school of Mr. F. C. S. Schiller. He is strongly—one may infer, temperamentally—opposed to the intellectualistic rigidities of absolutism, an ardent advocate of "the newer hedonism" and "the newer pluralism." And he is in the main an effective advocate, although he would not weaken his case by the use of more measured rhetoric.

The present article is an application of the general position set forth by the same writer in an earlier article in *Mind* (N. S., 54) entitled "Phenomenalism in Ethics," in which he maintains that, ethically, reality is incomplete and indeterminate; that the psychological self of "functional identity" is adequate for ethics; and that ethical sanctions inhere

[1] "La valeur de la Science."

emotionally in the acts themselves and not in any absolute standard conceived as a limit. The ethical absolute is a product of reflection upon conduct; it plays no part in the moral experience itself. Phenomenalism Mr. Doan defines in the terms of his opponent, Mr. Bradley, as "confinement of one's attention to events with their laws of coexistence and sequence."

In this second paper Mr. Doan deals specifically with the question of sanctions for a phenomenalistic ethic. Idealistic systems of ethics in insisting upon absolute sanctions have failed to consider the psychology of the moral life; practical systems have compromised their cause by setting up prudential, non-moral sanctions. The plain man is certainly not conscious of absolute sanctions. He rules his conduct by what he recognizes as the satisfactions of his own experience. He admits error and blunder in his acts, not depravity and guilt. His moral world is experimental, not final.

From the point of view of human experience reality is constantly changing. It is "alive, pulsating in every organ, sweating at every pore." It has its richer and its poorer moments. "Nothing in this significant living world can be categorically fixed, embalmed as sacramental." As a sense of unity develops in an experience, that experience withdraws from the ferment of life. Psychologically the fundamental character of experience is its discreteness, its pluralism. "Corresponding to the plural constitutents of experience in its cognitive aspect, there is a plural array of feeling tones." These feeling tones are the phenomenal sanctions of the moral life. "The value of the action and the worth of the being are measured by the kind and degree of emotive peace they import into the agent's organism." A situation is moral in proportion to the amount of volitional and emotional strain involved and the accompanying intensity of consciousness.

Cognitions, concepts, represent the "hard places" in experience. They serve as centers for action, bases for memory, imagination, anticipation. They "mitigate emotion." It is the feeling tone attached to concepts that makes them available for conduct. Action upon purely conceptual grounds is inconceivable. Feeling is the one aspect of experience that has infinitude. It becomes finite only when bound up with cognition. It is the core of feeling in a concept that gives us a sense of generality, of unity. The awareness of sameness depends on emotive satisfactoriness.

The larger moral concepts which serve as ideals, such as happiness, perfection, self-realization, work well in the actual moral life only so long as they focus concrete perceptual contents, "function through points of special happiness, plural perfections, and the like." The moral life is, therefore, emphatically pluralistic. The moral agent must be heroic or pessimistic; his experience can never be wholly unified. The curve of developing life may be plotted in terms of past experience, but never with entire certainty.

Mr. Doan's view of the emotional nature of the concept has been made familiar to us in much recent discussion. It is implied or stated by Professors James, Dewey, and Baldwin. The writer refers appre-

ciatively to Professor Kate Gordon's exposition of the subject. The reviewer, while sympathizing with Mr. Doan's general position, feels that in his effort to stress the functional pluralism of the moral life he has unduly neglected the even more important functional unifications of experience. And if "the kind and degree of emotive peace" are to be made the ethical sanction, it seems essential to estimate and analyze these "kinds and degrees," in order to avoid repeating, under a new terminology, John Stuart Mill's begging of the utilitarian question.

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The Cause of the Treppe. FREDERIC S. LEE. *The American Journal of Physiology,* April, 1907. Pp. 267–282. *The Action of Normal Fatigue Substances on Muscle.* FREDERIC S. LEE. *Ibid.,* October, 1907. Pp. 170–179.

Treppe is the name given by Bowditch to the familiar phenomenon of skeletal muscle, that with stimuli uniform in strength the later contractions are stronger than the earlier ones; a phenomenon which is probably very closely related to that which Exner has called *Bahnung,* and therewith to "summation" in general. Lee finds that "the treppe of skeletal muscle is due to the augmenting action on the muscle protoplasm of fatigue substances present in small quantity"; while if present in greater quantity, their effect is depressive. This "chemical theory of the treppe may be extended to the explanation of the mysterious process known as summation of stimuli. As applied in its usual sense to contractile tissues, the term means the phenomenon wherein a stimulus, too weak to cause a contraction when applied singly, becomes efficient when repeated. A subminimal stimulus may thus pass the threshold and become minimal and even supraminimal, . . . and it is generally acknowledged that the chemical changes of muscular activity occur, in large part at least, during the period of the excitatory stage rather than during the subsequent mechanical stage."

Since the augmenting action of fatigue substances occurs in both curarized and non-curarized muscles, there is no doubt that "fatigue substances act directly on the protoplasm of the muscle cells. This, however, leaves still open the question as to whether they may not also depress the substance of both nerve fibers and intramuscular nerve-endings." "With the central nervous system carbon dioxide is an undoubted product of activity, and there is no inherent improbability in its acting as a factor in making paths of conduction that have once been traversed more easy of subsequent passage." Sherrington, in his "Integrative Action of the Nervous System," states that temporal summation and *Bahnung* are exhibited by reflex-arcs in much higher degree than by nerve-trunks, and he ascribes this fact, for obviously good reasons, largely to the synapses of the reflex-arcs. It should seem that there are two causes for the summation of stimuli.

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JOURNALS AND NEW BOOKS

ZEITSCHRIFT FÜR PHILOSOPHIE UND PHILOSOPHISCHE KRITIK. October, 1907, Band 131, Heft 1. *Nachruf auf Ludwig Busse* (late editor of the paper). *Über Atomismus und Mechanismus* (pp. 1–32): A. MÜLLER. – Though atoms are fiction, yet they are essential to our interpretation of nature; for atomism, in its general form, is the expression of the discontinuity of matter. Mechanism, a special form of atomism, is not the product of a special sense of motion, as Heyman maintains, but the expression of the theoretical possibility of reversing every movement. The practical impossibility of reversing any movement whatever is maintained, and this, with the movement towards electric and energetic interpretations of matter, points to the essential limitations of an atomistic interpretation of the world. But those limitations are best based on epistemological—Kantian—grounds. *Das Mass der Verschiedenheit* (pp. 33–49): E. MALLY. – The common use of the term difference is precisely expressed in the logarithmic measure of difference here demonstrated as universally applicable. *Bericht über die Erscheinungen der französischen philosophischen Literatur im Jahre 1903* (pp. 50–63): E. DUTOIT. – Most space is given to commendatory notices of Gaillard's "L'étude des phénomènes au point de vue de leur probléme particulier," Renouvier's "Le personalisme" and Sabathier's "La philosophie de l'effort." *Die historische Anarchie der philosophischen Systeme und das Problem der Philosophie als Wissenschaft.* I. (pp. 64–84): M. FRISCHEISEN-KÖHLER. – Philosophies are manifestly personal, not universal, and the only real science of philosophy is its history. *Rezensionen:* K. Joel, *Der Ursprung der Naturphilosophie aus dem Geiste der Mystik:* R. HIRSCH. M. Dessoir und Paul Menzer, *Philosophisches Lesebuch:* A. MESSER. B. Otto, *Beiträge zur Psychologie des Unterrichts:* H. GOEBEL. E. Seilliere, *Appolo oder Dionysos:* B. WITIES. J. Schultz, *Die Bilder von der Materie:* O. SIEBERT. H. Stephan, *Herders Philosophie:* G. JACOBY. J. Volkelt, *System der Ästhetik* and *Asthetik des Tragischen:* STRECKER. H. Kleinpeter, *Die Erkenntnistheorie der Naturforschung der Gegenwart:* R. HIRSCH. T. Ziehen, *Leitfaden der physiologischen Psychologie in 15 Vorlesungen:* L. BUSSE. *Selbstanzeigen. Notizen. Neu eingegangene Schriften. Aus Zeitschriften.*

George Washington University Bulletin. Faculty of Graduate Studies Number, Vol. VI., No. 3, 1907. This number contains, among other articles, the following: The Kantian Basis of Agnosticism, by James Macbride Sterrett; The Limitations of Language in the Expression of Truth, by George Lansing Raymond; Notes on the Style of Seneca the Philosopher, by Charles Sidney Smith.

Hensel, Paul. *Rousseau.* Leipzig: B. G. Teubner. 1907. Pp. 118. 1 M.

Jacoby, Günther. *Herders und Kants Asthetik.* Leipzig: Dürr'sche Buchhandlung. 1907. Pp. ix + 348. 5.40 M.

Kirn, Otto. *Sittliche Lebensanschauungen der Gegenwart.* Leipzig: B. G. Teubner. 1907. Pp. 122. 1 M.

Richter, Raoul. *Einführung in die Philosophie.* Leipzig: B. G. Teubner. 1907. 1 M.

NOTES AND NEWS

We take the following extract from the *Nation* of December 5: "A new organ of the advanced theology in Germany has been established in the monthly called *Evangelische Freiheit,* edited by Professor O. Baumgarten, of the University of Kiel, and published by Mohr, in Tübingen. Its purpose is chiefly to show that liberal thought, because on a friendly footing with modern culture in general, is better able to supply the religious wants of our generation than orthodoxy possibly can do. Practically all the liberal university theologians of Germany are enrolled in its list of contributors. The publishing house of Mohr, which has within the last few years issued more than two hundred thousand copies of the booklets constituting the series of scholarly yet popular expositions of Biblical and religious problems known as the 'Religionsgeschichtliche Volksbücher,' now announces as supplementary to this series a new monthly journal called *Die Religion in Geschichte und Gegenwart.* This periodical is to be devoted to the discussion of religious questions from the modern point of view, and hence will give much attention to 'questions and doubts' that the readers suggest. A similar yet more conservative idea underlies the new quarterly review known as *Die Theologie der Gegenwart,* published by A. Deichert, of Leipzig. More conservative still is the new series called 'Flugblatt für Gebildete,' issued monthly by C. Bertelsmann, of Gütersloh, in the interest of Christian apologetics. Another new religious paper, *Die Dorfkirche,* which has made its appearance in Germany, has for its province the cultivation of the religious life of the German Protestant peasant, and the assistance of the pastors and teachers of the peasant villages in central and northern Germany in their difficult task of understanding the intellectual and emotional processes of the people to whom they minister. The editor, Hans von Lüpke, a pastor in Thalbürgel, Thuringia, declares that the missionary to the heathen is better equipped in the comprehension of the religious life and usages of foreign races by his university training than is the pastor of a peasant church for effective ministry in his country parish. Religious sentiments utterly strange to him appear in his congregation after years of labor among them, and he finds often, to his sorrow, that his efforts have been totally misconceived and that he has wrought injury where he hoped to bestow benefit. No observer of the German peasant will question the truth of this statement. The chasm between the *Bauer* and the city dweller is a wide one. A. l'Houet, author of the valuable 'Psychologie des deutschen Bauerntums,' is one of the collaborators in the new enterprize, whose progress may be watched with interest."

At the meeting of the Aristotelian Society on December 2, Professor R. Latta read a paper on "Purpose," of which the *Athenæum* of December 7 gives the following abstract: "As there are cases in which a person acts under the influence of an indefinite and growing purpose of which he becomes definitely conscious only at an advanced stage in his course of action, purpose, even in the psychological sense, can not be limited to what is clearly and definitely conceived by the purposing mind. Agency is an element in purpose, not merely in the sense of conscious agency, but in the sense in which an agent is regarded as a real system of conditions having a definite unity. The relativity of the scientific conception of things is not due to its being a product of conscious purpose, but is another way of saying that the conditions on which it depends have not been made fully explicit. We find purpose in things in proportion as we find in them systematic unity. A thing has a purpose in so far as it is a unity of conditions in a system, in so far as it has individuality and is not a separate and colorless element. The mechanical point of view excludes purpose, because it abstractly considers part in relation to part, leaving the whole out of account. The special characteristic of self-conscious purpose is the indissoluble unity of end and means—a unity which is less complete in organic and quasi-organic systems. The typical form of purpose is self-conscious purpose, but the tendency to dissociate this from other forms of purpose and to treat it as a peculiar phenomenon is to be deprecated. Purpose involves selection, but selection presupposes system, and free selection is not arbitrary, but rational, selection."

The seventh annual meeting of the American Philosophical Association was held in Goldwin Smith Hall at Cornell University, Ithaca, N. Y., on Thursday, Friday and Saturday, December 26–28, 1907. There was an afternoon session on Thursday, a morning and afternoon session on Friday, and a morning session on Saturday. On Friday evening the Association was welcomed by President Schurman, of Cornell University. His address was followed by the address of the president of the Association, Professor H. N. Gardiner, of Smith College, on "The Problem of Truth." The session on Saturday morning was devoted to a discussion on "The Meaning and Criterion of Truth," led by Professors James, Creighton, Bakewell, Hibben and Strong. Among the social features of the meeting were a smoker at the Town and Gown Club, on Thursday evening, and a reception given by President and Mrs. Schurman, at their home, on Friday evening, after the address of welcome. Luncheon was served to members of the Association at Sage College on Friday and Saturday. The business session of the Association was held on Friday afternoon, at which officers for the ensuing year were elected as follows: President, Professor Hugo Münsterberg, of Harvard University; Vice-president, Professor W. P. Montague, of Columbia University; Secretary-treasurer, Professor Frank Thilly, of Cornell University; members of the Executive Committee, Professor Ernest Albee, of Cornell University; Professor Charles M. Bakewell, of Yale University; Professor Herbert G. Lord, of Columbia University, and Professor Ralph Barton Perry, of Harvard University.